

U.S. Application Serial No.: 10/627,969  
Amendment dated November 21, 2006  
In response to Office Action Dated July 25, 2006

## REMARKS

Claims 1-40 are in this application.

Claims 41-44 had been canceled.

Claims 13-40, which had been previously withdrawn from prosecution for being directed to non-elected species, are now also canceled.

New claims 45-64 are added.

Claims 1-12 and 45-64 are currently pending in this application.

The Abstract has been amended by deleting the old Abstract in its entirety and substituting therefor a new Abstract.

Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh et al. (U.S. Patent No. 5,928,805) in view of Hornburg et al. (U.S. Patent No. 5,981,096).

Claim 1 is directed to a method of operating a fuel cell including an anode, a cathode, a first passage, and a second passage, wherein the anode is disposed in the first passage and the cathode is disposed in the second passage.

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The method includes the steps of:

producing a non-explosive gaseous feed consisting of (i) at least one oxidizable component having a greater tendency to undergo oxidation relative to the anode, and (ii) a remainder, wherein the remainder is the predominant component in the gaseous feed and consists essentially of water vapor; and

introducing the non-explosive gaseous feed to the first passage to form a first gaseous stream flowing through the first passage when the anode realizes a temperature effective to facilitate deteriorative oxidation of the anode in the presence of an oxidizing agent.

Singh et al. does not teach or suggest the use of a non-explosive gaseous feed consisting of:

(i) at least one oxidizable component having a greater tendency to undergo oxidation relative to the anode, and

(ii) a remainder, wherein the remainder is the predominant component in the gaseous feed and consists essentially of water vapor.

The passage which the Examiner has relied upon refers to a gaseous fuel which is typically supplied to the fuel cell under normal operating conditions of the fuel cell. This gaseous fuel is only supplied to the fuel cell after the temperature has far exceeded the temperature realized by the anode to facilitate deteriorative oxidation of the anode.

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Further, it should be noted that, at these lower temperatures (i.e. those temperatures at which the anode is susceptible to deteriorative oxidation), the gaseous fuel is no longer non-explosive. Rather, the gaseous fuel is indeed explosive at such low temperatures.

Singh et al. does disclose the use of a start-up gas or a cover gas in a fuel cell. However, any "remainder" in the start-up gas or cover gas of Singh et al., being introduced to a fuel cell when the anode of the fuel cell realizes a temperature effective to facilitate deteriorative oxidation of the anode in the presence of an oxidizing agent, does not consist essentially of water vapor.

Thus, the present invention is not taught or suggested by Singh et al., either alone, or in combination with Hornburg et al.

Accordingly, rejection of claims 1-7 under 35 U.S.C. 103(a) as being unpatentable over Singh et al. (U.S. Patent No. 5,928,805) in view of Hornburg et al. (U.S. Patent No. 5,981,096) should be withdrawn and claims 1-7, as well as newly presented claims 45-46, should be allowed.

Claims 8-12 have been objected to as being dependent upon a rejected base claim but would be allowable if written in independent form including all of the limitations of the base claim and any intervening claims.

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Applicants traverse this objection because the Office Action requires that to be allowable claims 8 not only must be written in independent form, but must also include all of the limitations of the base claim and any intervening claims.

Applicants traverse this requirement on the basis that in describing the reasons for indicating allowable subject matter, the Office Action clearly states claims 8-12 are patentably distinct from the art of record for the following reason:

“In contrast, Singh et al. mix hydrogen with water vapor to produce a gaseous feed but are not concerned with any pretreatment of the gaseous feed. Accordingly claim 8 and claim 9-12, which are dependent thereon, are patentably distinct from the prior art of record.”

Accordingly, Applicants have added new claim 47 which includes the additional step of **evaporating an aqueous mixture consisting essentially of water and the at least one oxidizable component to produce the gaseous feed.**

In view of the foregoing, new claim 47 is patentably distinct from the art of record for at least the reasons stated by the Office Action for indicating allowable subject matter and, therefore, claim 47 is allowable.

New claims 48-59 depend directly or indirectly from allowable claim 47 and, as such, are also allowable.

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However, as required by the Office Action, Applicants have additionally rewritten claim 8 in independent form as new claim 60 including all of the limitations of the base claim and any intervening claims. In addition, allowable claims 9-12 were presented as new claims 61-64 depending from claim 60.

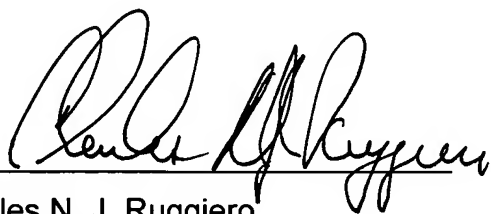
Accordingly, new claims 60-64 are also allowable.

A request for a one-month extension of time is hereby made to extend the period for response to November 27, 2006.

Applicants respectfully request examination of this application and allowance of the pending claims.

Respectfully submitted,

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By:   
Charles N. J. Ruggiero  
Reg. No. 28,468  
Attorney for Applicant(s)  
Ohlandt, Greeley, Ruggiero & Perle, L.L.P.  
One Landmark Square, 10<sup>th</sup> Floor  
Stamford, CT 06901-2682 U.S.A.  
Telephone: (203)-327-4500  
Telefax: (203) 327- 6401